

emissions and carbon-related exhaust emission values, rounded to the nearest tenth of a gram per mile, are the FTP-based city and HFET-based highway CO₂ emissions and carbon-related exhaust emission values for the vehicle configuration.

(3)(i) For the purpose of determining average fuel economy under § 600.510, the combined fuel economy value for a vehicle configuration is calculated by harmonically averaging the FTP-based city and HFET-based highway fuel economy values, as determined in paragraph (a)(1) or (2) of this section, weighted 0.55 and 0.45 respectively, and rounded to the nearest 0.0001 mile per gallon. A sample of this calculation appears in Appendix II of this part.

(ii) For the purpose of determining average carbon-related exhaust emissions under § 600.510, the combined carbon-related exhaust emission value for a vehicle configuration is calculated by arithmetically averaging the FTP-based city and HFET-based highway carbon-related exhaust emission values, as determined in paragraph (a)(1) or (2) of this section, weighted 0.55 and 0.45 respectively, and rounded to the nearest tenth of gram per mile.

(4) For alcohol dual fuel automobiles and natural gas dual fuel automobiles the procedures of paragraphs (a)(1) or (2) of this section, as applicable, shall be used to calculate two separate sets of FTP-based city, HFET-based highway, and combined values for fuel economy, CO₂ emissions, and carbon-related exhaust emissions for each configuration.

(i) Calculate the city, highway, and combined fuel economy, CO₂ emissions, and carbon-related exhaust emission values from the tests performed using gasoline or diesel test fuel.

(ii) Calculate the city, highway, and combined fuel economy, CO₂ emissions, and carbon-related exhaust emission values from the tests performed using alcohol or natural gas test fuel.

(b) If only one equivalent petroleum-based fuel economy value exists for an electric vehicle configuration, that value, rounded to the nearest tenth of a mile per gallon, will comprise the petroleum-based fuel economy for that configuration.

(c) If more than one equivalent petroleum-based fuel economy value exists for an electric vehicle configuration, all values for that vehicle configuration are harmonically averaged and rounded to the nearest 0.0001 mile per gallon for that configuration.

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§ 600.207-12 Calculation and use of vehicle-specific 5-cycle-based fuel economy and CO₂ emission values for vehicle configurations.

(a) Fuel economy and CO₂ emission values determined for each vehicle under § 600.114 and as approved in § 600.008(c), are used to determine vehicle-specific 5-cycle city and highway fuel economy and CO₂ emission values for each vehicle configuration for which data are available.

(1) If only one set of 5-cycle city and highway fuel economy and CO₂ emission values is accepted for a vehicle configuration, these values, where fuel economy is rounded to the nearest 0.0001 of a mile per gallon and the CO₂ emission value in grams per mile is rounded to the nearest tenth of a gram per mile, comprise the city and highway fuel economy and CO₂ emission values for that configuration.

(2) If more than one set of 5-cycle city and highway fuel economy and CO₂ emission values are accepted for a vehicle configuration:

(i) All data shall be grouped according to the subconfiguration for which the data were generated using sales projections supplied in accordance with § 600.209-12(a)(3).

(ii) Within each subconfiguration of data, all fuel economy values are harmonically averaged and rounded to the nearest 0.0001 of a mile per gallon in order to determine 5-cycle city and highway fuel economy values for each subconfiguration at which the vehicle configuration was tested, and all CO₂ emissions values are arithmetically averaged and rounded to the nearest tenth of gram per mile to determine 5-cycle city and highway CO₂ emission values for each subconfiguration at which the vehicle configuration was tested.

(iii) All 5-cycle city fuel economy values and all 5-cycle highway fuel

economy values calculated in paragraph (a)(2)(ii) of this section are (separately for city and highway) averaged in proportion to the sales fraction (rounded to the nearest 0.0001) within the vehicle configuration (as provided to the Administrator by the manufacturer) of vehicles of each tested subconfiguration. The resultant values, rounded to the nearest 0.0001 mile per gallon, are the 5-cycle city and 5-cycle highway fuel economy values for the vehicle configuration.

(iv) All 5-cycle city CO₂ emission values and all 5-cycle highway CO₂ emission values calculated in paragraph (a)(2)(ii) of this section are (separately for city and highway) averaged in proportion to the sales fraction (rounded to the nearest 0.0001) within the vehicle configuration (as provided to the Administrator by the manufacturer) of vehicles of each tested subconfiguration. The resultant values, rounded to the nearest 0.1 grams per mile, are the 5-cycle city and 5-cycle highway CO₂ emission values for the vehicle configuration.

(3) [Reserved]

(4) For alcohol dual fuel automobiles and natural gas dual fuel automobiles the procedures of paragraphs (a)(1) and (2) of this section shall be used to calculate two separate sets of 5-cycle city and highway fuel economy and CO₂ emission values for each configuration.

(i) Calculate the 5-cycle city and highway fuel economy and CO₂ emission values from the tests performed using gasoline or diesel test fuel.

(ii) Calculate the 5-cycle city and highway fuel economy and CO₂ emission values from the tests performed using alcohol or natural gas test fuel, if 5-cycle testing has been performed. Otherwise, the procedure in § 600.210–12(a)(3) or (b)(3) applies.

(b) If only one equivalent petroleum-based fuel economy value exists for an electric configuration, that value, rounded to the nearest tenth of a mile per gallon, will comprise the petroleum-based 5-cycle fuel economy for that configuration.

(c) If more than one equivalent petroleum-based 5-cycle fuel economy value exists for an electric vehicle configuration, all values for that vehicle configuration are harmonically averaged

and rounded to the nearest 0.0001 mile per gallon for that configuration.

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§ 600.208–12 Calculation of FTP-based and HFET-based fuel economy, CO₂ emissions, and carbon-related exhaust emissions for a model type.

(a) Fuel economy, CO₂ emissions, and carbon-related exhaust emissions for a base level are calculated from vehicle configuration fuel economy, CO₂ emissions, and carbon-related exhaust emissions as determined in § 600.206–12(a), (b), or (c) as applicable, for low-altitude tests.

(1) If the Administrator determines that automobiles intended for sale in the State of California and in section 177 states are likely to exhibit significant differences in fuel economy, CO₂ emissions, and carbon-related exhaust emissions from those intended for sale in other states, she will calculate fuel economy, CO₂ emissions, and carbon-related exhaust emissions for each base level for vehicles intended for sale in California and in section 177 states and for each base level for vehicles intended for sale in the rest of the states.

(2) In order to highlight the fuel efficiency, CO₂ emissions, and carbon-related exhaust emissions of certain designs otherwise included within a model type, a manufacturer may wish to subdivide a model type into one or more additional model types. This is accomplished by separating subconfigurations from an existing base level and placing them into a new base level. The new base level is identical to the existing base level except that it shall be considered, for the purposes of this paragraph, as containing a new basic engine. The manufacturer will be permitted to designate such new basic engines and base level(s) if:

(i) Each additional model type resulting from division of another model type has a unique car line name and that name appears on the label and on the vehicle bearing that label;

(ii) The subconfigurations included in the new base levels are not included in any other base level which differs only by basic engine (*i.e.*, they are not included in the calculation of the original base level fuel economy values); and